



Supplementary Figure 1: Analysis of pancreatic cancer development from adult mouse acinar cells

(A) Kaplan-Meier analysis of overall survival of cohorts listed in Figure 1A. Labels indicate the *Trp53* status of each cohort. Overall survival in *KT;Ptf1a^{CreER};Trp53^{fl/fl}* mice (n = 23) and *KT;Ptf1a^{CreER};Trp53^{fl/+}* mice (n = 6) is significantly different from *KT;Ptf1a^{CreER};Trp53^{+/+}* mice (n = 21), based on the log-rank test. Overall survival in *KT;Ptf1a^{CreER};Trp53^{fl/fl}* mice (n = 23) is significantly different from *KT;Ptf1a^{CreER};Trp53^{fl/+}* mice (n = 6), based on the log-rank test. ***p-value < 0.001, ****p-value < 0.0001. (B) Kaplan-Meier analysis of pancreatic cancer free survival of the *KT;Ptf1a^{CreER};Trp53^{+/+}* and *KT;Ptf1a^{CreER};Trp53^{fl/fl}* cohorts listed in Figure 1A. Labels indicate the sex of each group. Pancreatic cancer-free survival in *KT;Ptf1a^{CreER};Trp53^{+/+}* male mice (n = 9) is significantly shorter than that of *KT;Ptf1a^{CreER};Trp53^{+/+}* female mice (n = 12), based on the log-rank test. Pancreatic cancer-free survival in *KT;Ptf1a^{CreER};Trp53^{fl/fl}* male mice (n = 9) is similar to *KT;Ptf1a^{CreER};Trp53^{fl/fl}* female mice (n = 14), based on the log-rank test. *p-value < 0.05. Not significant = ns. (C) Kaplan-Meier analysis of overall survival of the *KT;Ptf1a^{CreER};Trp53^{+/+}* and *KT;Ptf1a^{CreER};Trp53^{fl/fl}* cohorts listed in Figure 1A. Overall survival in male mice (n = 9) is significantly shorter than that of female mice (n = 12), based on the log-rank test. Overall survival in *KT;Ptf1a^{CreER};Trp53^{fl/fl}* male mice (n = 9) is similar to *KT;Ptf1a^{CreER};Trp53^{fl/fl}* female mice (n = 14), based on the log-rank test. * p-value < 0.05. Not significant = ns. (D) Representative images of mice presenting with ascites, jaundice, or bowel obstruction in each cohort. Arrows indicate hemorrhagic ascites as evidenced by the accumulation of blood within the abdominal cavity, jaundice as indicated by yellowing of the skin, and bowel obstruction as indicated by swelling of the intestine due to blockage. (E) Representative vimentin immunohistochemistry images of pancreatic tumors from *KT;Ptf1a^{CreER};Trp53^{+/+}*, with sarcomatoid carcinoma or adenocarcinoma morphology. Scale Bar = 100 μ m. (F) Representative histological images of an IPMN analyzed by H&E staining and immunohistochemistry for tdTomato combined with alcian blue staining to mark mucinous structures. Scale Bar = 100 μ m. (G) Representative bright-field and fluorescence dissecting scope images of a primary acinar-derived tumor (left) and liver with macroscopic metastases (right). Scale Bar = 2 cm. (H) Representative histological images of a peritoneum metastasis analyzed by H&E staining and immunohistochemistry for tdTomato and CK19. Scale Bar = 100 μ m.